

Title

Oxycombustion boiler with oxygen production

Abstract

The boiler of the invention has a circulating fluidized bed, uses solid fuels and the oxygen obtained by high temperature oxygen production membranes, and is characterized in that the membranes are placed in the bed. These membranes are, for example, of the OTM (Oxygen Transport Membranes) type. Since the membranes operate at over 700°C, their positioning in the outer bed is ideally selected because the temperature of the solids circulating in the outer bed is between 750 and 900°C. This is particularly remarkable because the operating temperature windows of the circulating fluidized bed coincide with the optimal temperature window of use of the membranes.

Fig. 1